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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,053	04/12/2005	Mario Gioni Chiocchetti	6517/PCT	4962

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BREINER & BREINER, L.L.C.
P.O. BOX 320160
ALEXANDRIA, VA 22320-0160

EXAMINER	
SCRUGGS, ROBERT J	
ART UNIT	PAPER NUMBER
3723	
MAIL DATE	DELIVERY MODE
02/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,053	CHIOCCHETTI ET AL.	
	Examiner	Art Unit	
	ROBERT SCRUGGS	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) *35-48* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment received on November 1, 2007. Applicant's arguments, see page 16, line 13-23, with respect to the Biagiotti reference have been fully considered and are persuasive therefore the previous rejection has been withdrawn. Applicant has cancelled claims 35-48 therefore claims 1-34 remain pending in the application and have been fully examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (Re 30598) in view of Schultz (6257967) and further in view of Kovach (5484327) or Cohen (4611437) or Bohn (5462476).

Spencer discloses a sharpening unit (Figure 19) to sharpen a disk-shaped cutting blade (42) with a bevel with a continuous circular cutting edge (Figure 20) comprising, a first grinding wheel (135) and a second grinding wheel (136) acting on a first side and on a second side of said bevel and Spencer also teaches that the grinding wheels can be placed at certain angels with respect to the cutting edge (Column 9, Lines 47-68), but lacks, positioning said first grinding wheel a specific inclination such that when the unit is in operation, said first grinding wheel is placed against the first side of the bevel at an

inclination greater than the inclination of the first side, in respect to a lying plane of a cutting edge of the blade, while said second grinding wheel has an inclination which is substantially parallel to the second side of said bevel, and said second grinding wheel is constructed and arranged to sharpen the bevel of the blade and having the first grinding wheel formed with a finer grain than said second grinding wheel. The examiner notes that the device of Spencer is capable of being placed different inclinations but in an attempt to teach that such a configuration is old and known, Schultz discloses a sharpening unit (18) (Figure 3) configured to sharpen a disk-shaped cutting blade (10) with a bevel (12) comprising, a first grinding wheel (20) and a second grinding wheel (26) acting on a first side (14) and on a second side (16) of said bevel respectively a bevel, wherein said first side has a greater radial extension than the second side (see figure below) and Shultz also teaches that said first grinding wheel can be placed at an inclination such that when the unit is in operation, said first grinding wheel is placed against the first side of the bevel at an inclination greater than the inclination of the first side, in respect to a lying plane of a cutting edge of the blade (see figure below), while said second grinding wheel has an inclination which is substantially parallel to the second side of said bevel (see figure below), and said second grinding wheel is constructed and arranged to sharpen the bevel of the blade. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inclination of the sharpening devices, of Spencer, by positioning the first grinding wheel against the first side of the bevel at an inclination greater than the inclination of the first side in respect to a lying plane of a cutting edge of the blade, while said second grinding

wheel has an inclination substantially parallel to the second side of said bevel and said second grinding wheel is constructed and arranged to sharpen the bevel of the blade, as taught by Shultz, in order to provide an automatic sharpening device that can produce veneer type blades with precise faces having consistently sharpened cutting edges. In addition, Kovach discloses grinding (or it can be thought of as sharpening, since both processes remove material from a workpiece) a workpiece with first and second grinding wheels (Figure 1) (18 and 22) formed with different types of grits (Column 6, Lines 55-58). Cohen discloses sharpening devices (20, 22 and 24) that can be formed with different sharpening power (Column 3, lines 64-65). Bohn teaches the same concept that sharpening devices can be formed with different amount of abrasive thereby allowing a user to use rough stones for removing large amounts of material and fine stones for removing precise amounts of material (Column 2, Lines 2-10). Therefore, one of ordinary skill could have substituted the sharpening devices, of Spencer, with sharpening devices having different grit (or sharpening power), in view of Kovach or Cohen or Bohn, and the results would have been predictable in that a user would be able to quickly remove material on one side of the workpiece with the rougher grit while more precisely removing material on the other side of the workpiece with finer grit.

FIG. 1

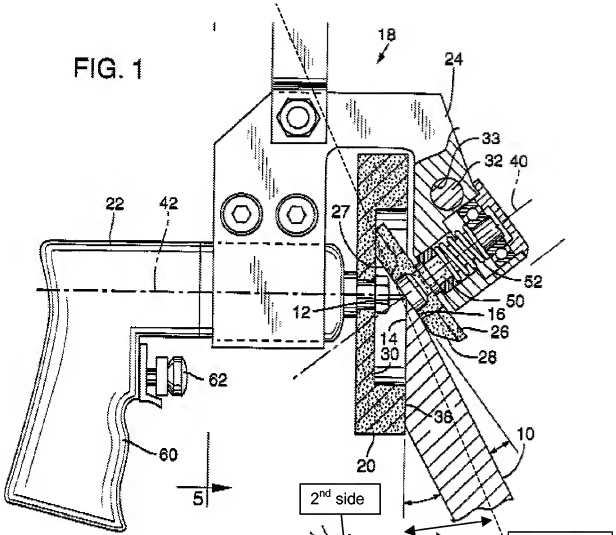
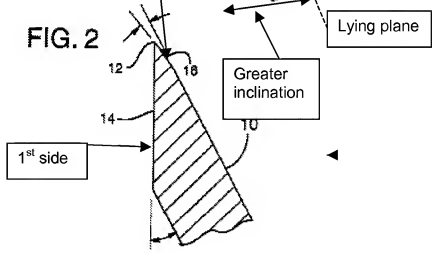

18
24
33
32
40
22
42
27
52
50
12
16
26
14
30
28
62
38
10
60
20
5

FIG. 2


2nd side
Lying plane
12
16
Greater inclination
14
10
1st side

In reference to claim 2, Spencer also discloses that said first grinding wheel and said second grinding wheel are provided with a movement to move towards and away from the blade according to a direction essentially parallel to axes of rotation of the first grinding wheel and the second grinding wheel (Column 9, Line 46-Column 13, Line 14).

In reference to claims 3 and 4, Spencer also obviously discloses that the grinding wheels individually can come into contact with the cutting blade before the other grinding wheel comes into contact with the cutting blade depending on the how the user is controlling the movement of the wheels in relation to one another.

In reference to claim 5, Spencer also discloses that said first grinding wheel and said second grinding wheel are motorized (Column 11, Lines 21-46).

In reference to claim 6, Spencer also discloses that the inclination of each said first grinding wheel and said second grinding wheel are equal and opposite in respect to the lying plane of the cutting edge of the blade, said lying plane being essentially orthogonal to the axis of rotation of the blade (Column 9, Lines 60-62).

In reference to claims 7 and 8, Spencer in view of Kovach also disclose that the first grinding wheel could have a fine grain from about 7-46 and that the second grinding wheel could have a grain of about 45-91, since Kovach teaches that the abrasive wheels be formed with any type of abrasive grain (see Kovach, Column 6, Lines 55-58).

4. Claims 9-14, 16-20 and 22-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (Re 30598) in view of Schultz (6257967) further in view of Kovach (5484327) or Cohen (4611437) or Bohn (5462476).and particularly in view of Biagiotti (cited by applicant).

In reference to claim 9, Spencer discloses the claimed invention previously mentioned above, but lacks, having a cutting blade having a bevel formed with first and second sides, wherein said first side has a greater radial extension than the second side and at least said first side having a surface hardening treatment. However, as previously mentioned above Shultz teaches that a blade can be formed a bevel that includes first and second sides, wherein said first side has a greater radial extension than the second side. In addition, Biagiotti teaches that a first side (F1)of a blade can be formed with a surface hardening treatment. (Page 8, Lines 30-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the first side of the blade, of Spencer, with a first side that is surface hardened, in view of Biagiotti, in order to provide a stronger blade with reduced wear.

In reference to claim 10, Spencer in view of Shultz and Biagiotti obviously disclose that the inclination of the first grinding wheel in respect of the first side of the bevel and thickness of said surface hardening treatment allow the cutting edge of the blade to remain within the thickness that has been subjected to hardening treatment depending on the inclination angle selected by the user.

In reference to claim 11, Spencer also discloses that said first grinding wheel and said second grinding wheel are provided with a movement to move towards and away from the blade according to a direction essentially parallel to axes of rotation of the first grinding wheel and the second grinding wheel (Column 9, Line 46-Column 13, Line 14).

In reference to claim 12, Spencer also discloses that the inclination of each said first grinding wheel and said second grinding wheel are equal and opposite in respect to the lying plane of the cutting edge of the blade, said lying plane being essentially orthogonal to the axis of rotation of the blade (Column 9, Lines 60-62).

In reference to claim 13, when Spencer is taken in view of Shultz the sharpening devices can be positioned at numerous angles which includes having a first side being substantially parallel to a lying plane as shown by Biagiotti (see figure 5).

In reference to claims 14 and 22, when Spencer is taken in view of Shultz the sharpening devices can be positioned at numerous angles which includes having an inclination between said first and second sides being at least 1 degree as shown by Biagiotti (see page 4, Line 27-page 5, line 2).

In reference to claim 16, Biagiotti discloses that the surface hardness is grater than 70 HRC, since the side that is subjected to the hardening treatment is performed with the same material as disclosed by the applicant.

In reference to claim 17, Biagiotti also discloses that the blade is made from alloy steel (see page 6, lines 9-12).

In reference to claims 18-20, Biagiotti also discloses that the surface treatment is a controlled nitriding treatment (see page 6, lines 12-16 of Biagiotti), which is harder than a base material of the blade (Figure 5).

In reference to claim 23, Biagiotti also discloses that the blade has a body delimited by two planes parallel to each other and essentially orthogonal to the axis of rotation of the blade (see figure 5 of Biagiotti).

In reference to the method claims 24-34, Spencer in view of further in view of Kovach or Cohen or Bohn and particularly in view of Biagiotti disclose the structural elements of the apparatus therefore the method is obviously disclosed, since the method merely recites the structural elements of the apparatus.

5. Claims 15, is are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (Re 30598) in view of Schultz (6257967) further in view of Kovach (5484327)

or Cohen (4611437) or Bohn (5462476) particularly in view of Biagiotti (cited by applicant) and especially in view of Maatschappii (cited by applicant). Spencer taken in view of Biagiotti disclose that the first side can formed from a hardening treatment but do not specifically disclose that the thickness of the layer is greater than 30 micrometers. However, Maatschappii discloses a hardening step that forms a layer (15) on the surface of the cutting blade greater than 30 micrometers (Page 2, Line 67-70). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the hardened layer, of Spencer, with a layer that is greater than 30 micrometers, in view of Maatschappii, in order to provide a strong yet relatively cheap to produce blade.

6. Claims 21, is rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (Re 30598) in view of Schultz (6257967) further in view of Kovach (5484327) or Cohen (4611437) or Bohn (5462476) particularly in view of Biagiotti (cited by applicant) and especially in view of Dewez (3507633). Spencer discloses the claimed invention previously mentioned above but does not specifically disclose that the blade is formed from chrome steel containing molybdenum. However, Dewez discloses a blade that formed from chrome steel containing molybdenum (Page 3, Lines 1-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the blade, of Spencer, with a blade formed from chrome steel containing molybdenum, in view of Dewez, in order to provide a blade with improved resistance to brittle fracture.

Response to Arguments

7. Applicant's arguments, see pages 12-23, filed November 1, 2007, with respect to the rejection(s) of claim(s) 1-34 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the rejections discussed above.

8. The examiner would like to mention that the combination of Kovach with Spencer would not be hindsight because the issue of removing material from a workpiece is addressed in both cases therefore one of ordinary skill in the art could look to the Kovach reference for the teaching of providing sharpening members formed with different grit in order to remove large amounts of material quickly while also removing small precise amounts of material depending on the desired surface profile needed by a user. Even though, Kovach uses two wheels to remove material from the same surface, it still teaches of using two wheels with different grit for removing material from a workpiece. Since, the sharpening members of Spencer are placed on different sides of the blade, the teachings from Kovach would suggest having one sharpening member of Spencer form with one type of grit and the other sharpening member formed with a second type of grit therefore the combination is considered proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT SCRUGGS whose telephone number is (571)272-8682. The examiner can normally be reached on Monday-Friday, 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RS

/Joseph J. Hail, III/

Supervisory Patent Examiner, Art Unit 3723